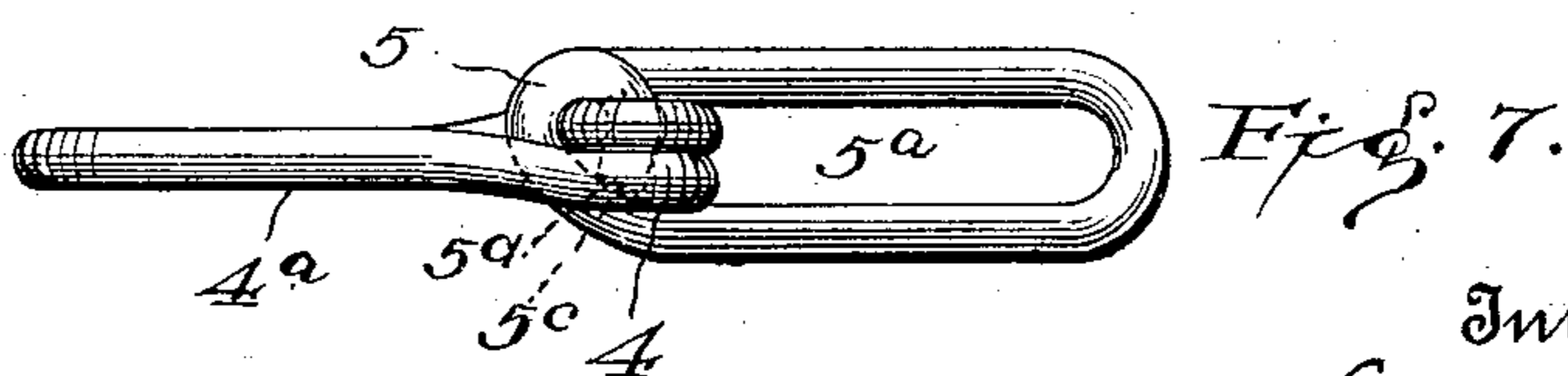
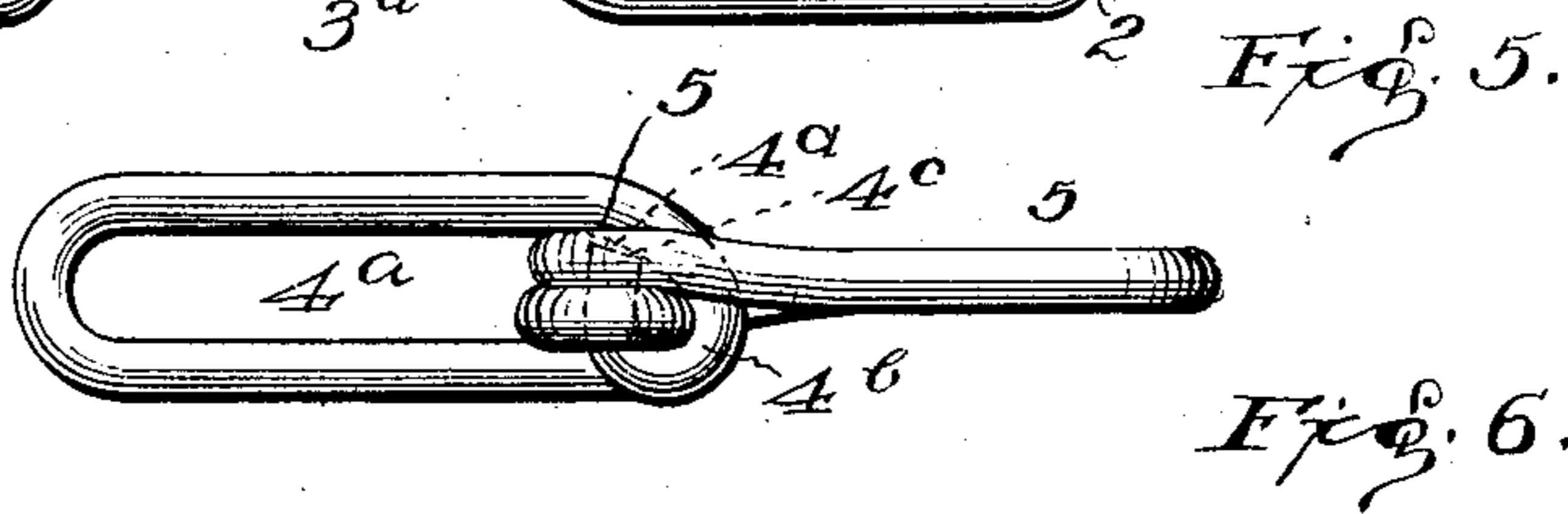
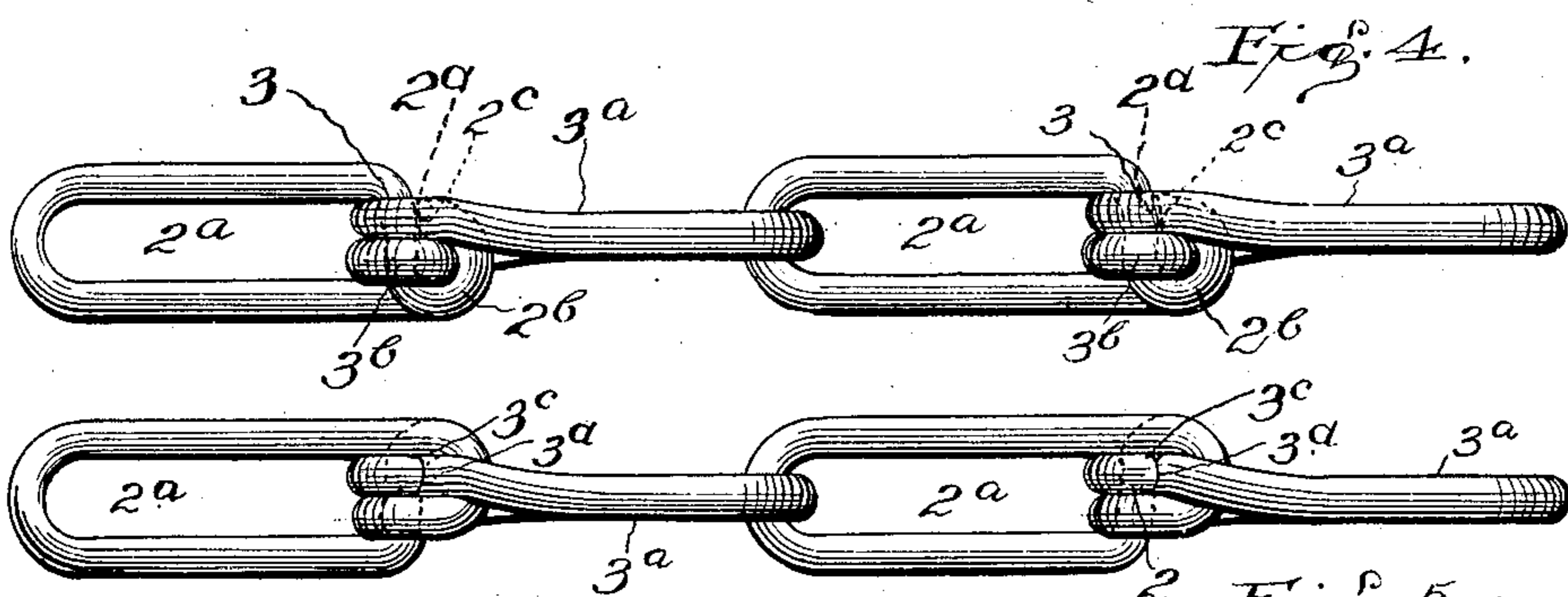
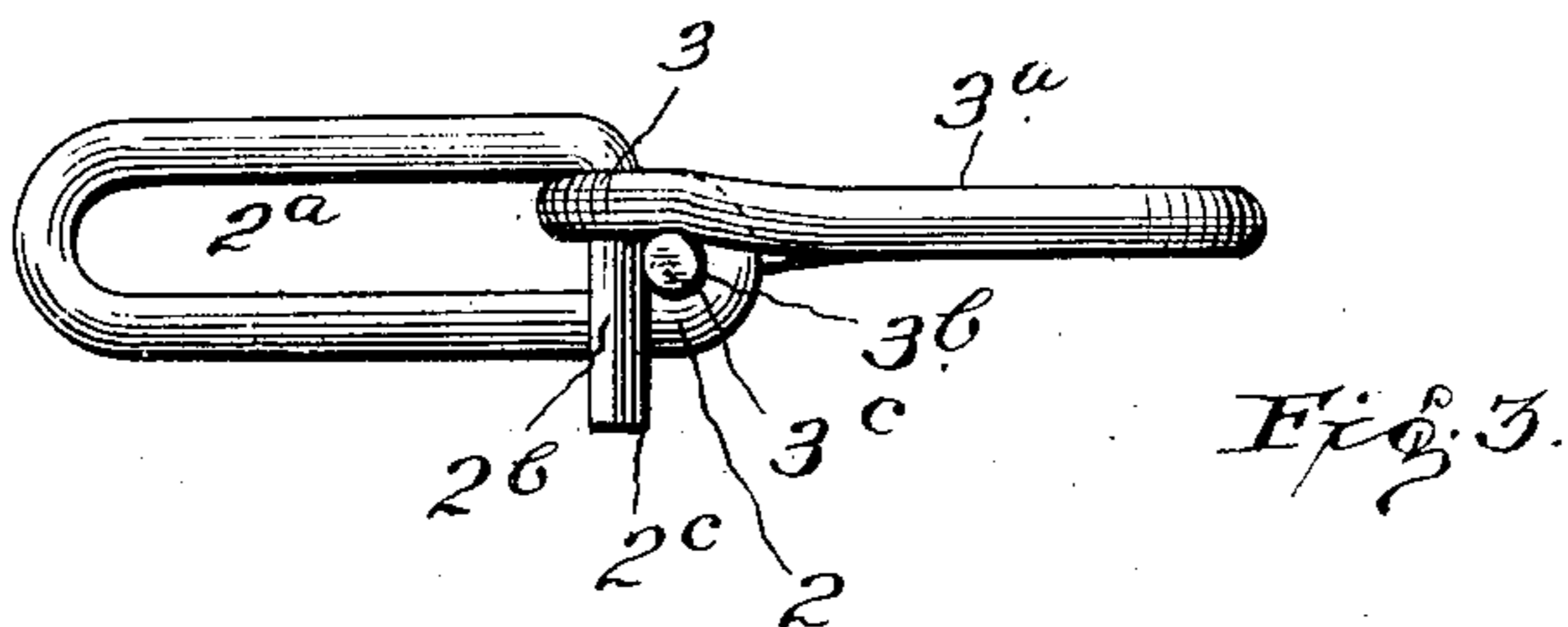
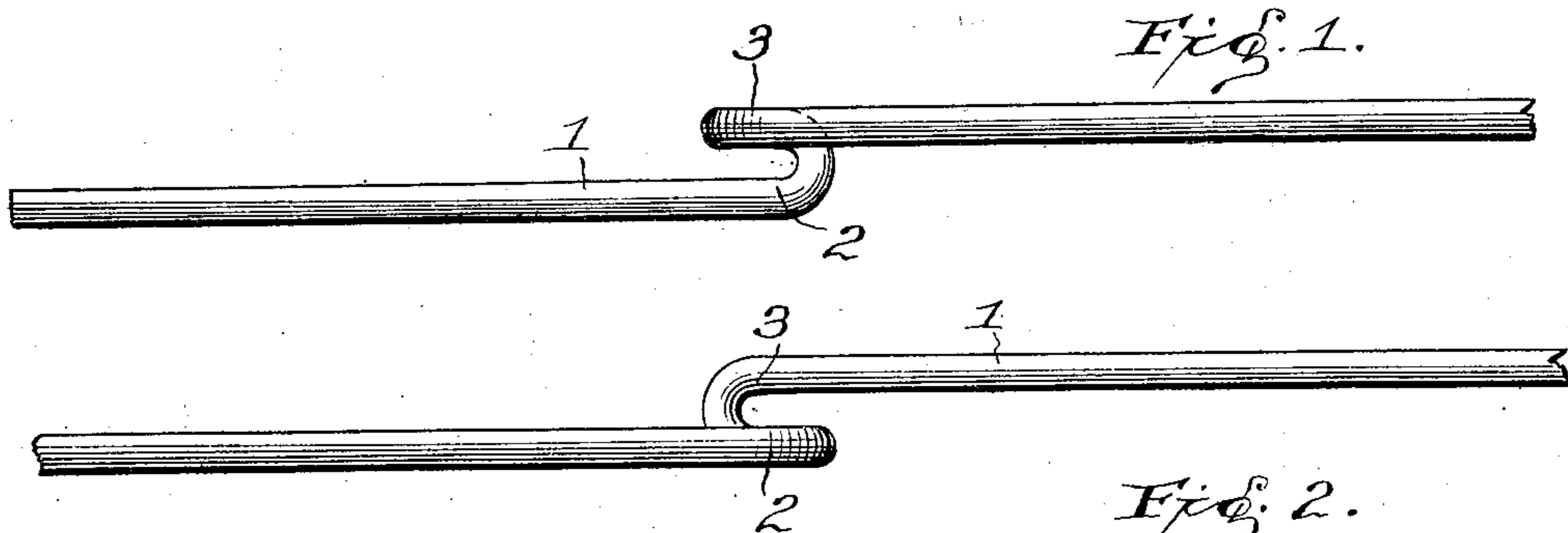


No. 862,470.

PATENTED AUG. 6, 1907.

W. H. GRIFFITH.
CHAIN LINK.

APPLICATION FILED AUG. 20, 1906.



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CHAIN-LINK.

No. 862,470.

Specification of Letters Patent.

Patented Aug. 6, 1907.

Application filed August 20, 1906. Serial No. 331,326.

To all whom it may concern:

Be it known that I, WILLIAM HENRY GRIFFITH, a citizen of the United States, residing at Omaha, in the county of Douglas and State of Nebraska, have invented certain new and useful Improvements in Chain-Links; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to links used in making chains for traces and for a variety of purposes. These links are usually made of a single piece of wire bent to form the two loops of a double link with the ends of the wire secured at the center of the link between the two loops.

It is the object of my invention to provide a link having one loop arranged in a plane at right angles to the plane of the other loop, wherein the ends of the wire are so bent that each end is securely clamped within two folds of the wire at the center of the link.

A further object of the invention is to obtain a link of the character described which is perfectly smooth and free from knots and protruding points which chafe the animal and rub off the hair when the link is used in trace chain, etc.

The invention consists in the features of construction and combinations of parts hereinafter described and more particularly pointed out in the claims concluding this specification.

In the accompanying drawing, illustrating the preferred embodiment of my invention: Figures 1 and 2 are views of a piece of wire upon which the first step of bending it into a link has been taken, the latter view being taken after the wire has been turned ninety degrees from the position shown in Fig. 1. Fig. 3 is a view showing the next step in forming the link. Figs. 4 and 5 are views of two interlocked links which have been completely formed, the latter view being taken after the links have been turned one hundred and eighty degrees from the position shown in Fig. 4, and Figs. 6 and 7 are views of a completely formed link of a modified construction, Fig. 7 being taken after the link has been turned ninety degrees from the position shown in Fig. 6.

Referring more particularly to the drawings, 1 indicates a piece of wire from which a link is to be made. The first step in the formation of the link is to bend the wire near its center to form two oppositely extending channels 2, 3, one arranged at right angles to the other as shown in Figs. 1 and 2. Said channels should be about the depth and width shown relative to the size of the wire. The next step is to bend the extending ends of the wire back forming the loops 2^a, 3^a, each substantially in the plane of its channel. The ends 2^b and 3^b, respectively, of the portions of the wire forming the loops 2^a and 3^a are passed through the channels in the planes of the opposite loops said ends engaging the

bends of the wire at the bases of said channels and crossing one another as shown in Fig. 3. Each of said ends is then bent around the portion of the other end which crosses it and through the opposite loop side by side with the bend of the wire at the base of the channel which is in the plane of its own loop. The extremities 2^c and 3^c, respectively, of the ends 2^b and 3^b, then abut against the surfaces of the portions of the wires forming the loops 2^a and 3^a at the points 2^d and 3^d shown in Figs. 4 and 5, and are arranged in the channels of the opposite loops. It will thus be seen that there are two bends or folds of wire passing through the base of each of the loops of the link and that each end of the wire is clamped within two folds of said wire. By providing the two folds of wire at the base of each loop, said loops are retained in shape with their side wires substantially parallel under tensile strain whereas if only one fold was used, the strain would tend to close said side wires upon the single fold and result in the elongation of the link. It will also be observed that by arranging the extremities of the wire in the channels they are placed out of the way and there are no projecting parts to cause injury.

In Figs. 6 and 7, I have illustrated a modified form of link. The first step in making this link is the same as that already described in connection with the first form, namely, the forming of the channels 4 and 5. The oppositely extending portions of the wire are then bent upon themselves in the planes of their channels forming loops 4^a and 5^a, respectively, but, instead of passing through at the bases of the channels of the opposite loops, the ends 4^b and 5^b pass through the upper portions of said channels and are bent back inward with their extremities 4^c and 5^c abutting against the surfaces of the outer folds of their own wire at the points 4^d and 5^d and arranged at the bases of the channels of the opposite loops. It will be noted that in this form also there are two folds of wire at the base of each loop. This form may have a point of advantage over the other in that in it the extremities of the wire are entirely inclosed in the folds at the middle of the link.

I claim:

1. A chain-link composed of a single piece of wire bent to form oppositely extending channels at right-angles to each other near its center, the oppositely extending portions of said wire bent to form loops arranged substantially in the planes of their respective channels, and the ends of said wire being connected with each other and the channels so that there are two folds of wire at the base of each loop.

2. A chain-link composed of a single piece of wire bent to form oppositely extending channels at right-angles to each other near its center, the oppositely extending portions of said wire bent to form loops arranged substantially in the planes of their respective channels, the ends of said wire passed respectively through the channels of the opposite loops and bent around each other with their extremities arranged in the opposite channels.

3. A chain-link composed of a single piece of wire bent

to form oppositely extending channels at right-angles to each other near its center, the oppositely extending portions of said wire bent to form loops arranged substantially in the planes of their respective channels, the ends
5 of said wire passed respectively through the channels of the opposite loops under and then over each other with their extremities arranged in the opposite channels.

4. A chain-link composed of a single piece of wire bent
10 to form oppositely extending channels at right-angles to each other near its center, the oppositely extending portions of said wire bent to form loops arranged substan-

tially in the planes of their respective channels, the ends of said wire passed respectively through the channels of the opposite loops and bent inward around each other with their extremities arranged in the bases of the opposite channels and abutting against their own outer folds. 15

In testimony whereof, I affix my signature, in presence of two witnesses.

WILLIAM HENRY GRIFFITH.

Witnesses:

E. T. YATES,

IRA J. BURLERSON, JR.